

ing as well as renal therapy but to higher general treatment costs (educated: 4364€; not educated: 2795€). Total number of long term events prevented for 5,000 patients was 1,810. Results were most sensitive to improvements in screening rates and the costs of implementing the program. **CONCLUSIONS:** Patient education reduced late complications and therefore is able to compensate for higher management and treatment costs. Results of model-based projections demonstrated that the program may be cost-saving over ten years in an Austrian cost setting.

**PDB17**

**ABSOLUTE AND INCREMENTAL EFFECTS OF THERAPY-SWITCHING THRESHOLDS ON THE COST-EFFECTIVENESS OF TREATMENTS FOR OBESE TYPE-2 DIABETES PATIENTS IN GERMANY**

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**OBJECTIVES:** The therapy-switching threshold is the blood glucose level at which a treatment is failing to maintain glycaemic control. We assess the impact of a change in therapy-switching threshold on lifetime cost-effectiveness of treatment for Type-2 Diabetes in Germany. **METHODS:** DiDACT is an established model of Type-2 diabetes, which includes all relevant costs in taking a sickness funds perspective. German guidelines recommend a therapy-switching threshold of  $HbA_{1c} < 7.0\%$ . We assess an increase to 7.5%, because some patients cannot achieve a lower threshold in clinical practice. We simulated treatment histories for cohorts of 1000 obese patients (mean BMI = 34). Following Metformin monotherapy failure, combination therapy adding Rosiglitazone (8mg/d) was compared to adding Glibenclamide. Costs were discounted at 5% pa. We present both within-group "absolute" and between-group "incremental" comparisons. **RESULTS:** A higher therapy-switching threshold simultaneously leads to inferior glycaemic control and extended oral anti-diabetic viability. Deteriorating glycaemic control increases morbidity and mortality. The absolute effect of weaker control is smaller in the Rosiglitazone cohort (104 fewer Life-Years compared to 185 with Glibenclamide). Extending oral therapy before requiring insulin improves quality-of-life (QOL). The absolute effect of weaker control is smaller in the Rosiglitazone cohort (115 more QALYs compared to 266 with Glibenclamide). Superior glycaemic control in the Rosiglitazone cohort yields incremental Life-Years/QALYs of 188/295 ( $HbA_{1c}$  7.0%) and 270/143 ( $HbA_{1c}$  7.5%). The higher threshold leads to cost increases in both cohorts, but reduces incremental costs. The higher threshold reduces the discounted incremental cost-effectiveness ratio (ICER) per Life-Year from 27,516€ to 18,345€ and increases the ICER per QALY from 17,523€ to 34,471€. **CONCLUSIONS:** When selecting the therapy-switching threshold there is a trade-off between glycaemic control and QOL. ICERs for proposed care adding Rosiglitazone to Metformin remain robust to changes in therapy-switching threshold. It is important to consider both absolute and incremental effects when changing key model parameters.

**PDB18**

**SEARCHING FOR DIABETES MELLITUS (DM) IN PRIMARY CARE—IT IS GOOD VALUE-FOR-MONEY IN POLAND? (COST OF DIAGNOSING DIABETES MELLITUS IN PRIMARY CARE CONDITION IN POLAND)**

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**OBJECTIVES:** The aim of the study was to assess the costs of early detection of DM in the Polish population. **METHODS:** An analysis of the costs of diagnosis of DM in primary care was based on an epidemiological study "Screen-Pol 2", which was performed in 2003 and 2004, in 119 centres situated throughout Poland. The detection of DM was carried out according to ADA and WHO criteria. During the diagnostic process the following tests were performed: random blood capillary glucose (RBCG), fasting venous plasma concentration (FPG) and oral glucose tolerance (OGTT). The tests constituted sequential steps in a diagnostic pathway used in primary care in Poland. Third party payer perspective was applied. **RESULTS:** A total of 11,418 undiagnosed patients took part in the study. The average cost of detection of DM was 23.22€\*. The cost of detection of one case of DM only by RBCG was 20.62€. The cost of detection of DM with FPG was 29.43€ and 171.15€ (if repeated). When OGTT was used the cost of each case of DM detected reached 390.93€. **CONCLUSIONS:** The early detection of DM is a simple and cheap procedure, when introduced as a screening programme. It is 23 times less expensive than one year's treatment of a single case of DM in terms of direct medical costs and 64 times cheaper in terms of indirect costs. (\* 1 Euro = 4.6 PLN).

**PDB19**

**COST OF HOSPITAL ADMISSIONS FOR CARDIOVASCULAR DISEASE OVER FIVE YEARS IN PATIENTS WITH DIABETES MELLITUS**

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**OBJECTIVES:** This study was undertaken to quantify the cost of hospitalization for cardiovascular disease (CVD) in patients with diabetes over a 5-year period. **METHODS:** The cohort of patients with diabetes was identified in the 1996 Massachusetts inpatient database using ICD-9 codes and unique patient identifiers. Index admission was defined as the first admission in 1996 where a diagnosis of diabetes was recorded. Readmissions over the subsequent 5 years (1996–2000) for ischemic heart (IHD) disease, cerebrovascular disease, congestive heart failure (CHF) and other CVD were tallied for each patient. Massachusetts hospital costs, including all accommodations and ancillary services were estimated from the all payer discharge databases adjusted to national values, for medical inflation, by cost-to-charge ratios, and are reported in 2002 US dollars. **RESULTS:** Of the 52,859 patients with diabetes identified in 1996, one third was admitted for CVD at index, mean age was 68 years and 47% were male. Case fatality rate during the index admission was 4%. Subsequently, 21,778 (44%) of index admission survivors had at least one readmission (mean: 2.5, range: 1–33) for a CVD problem within five years (57% readmission rate for those admitted for CVD at index). IHD accounted for 31% of CVD-related readmissions (mean cost per stay: \$12,500), cerebrovascular events for 11% (mean: \$8100), CHF for 33% (mean: \$8000) and 25% other CVD (mean: \$11,100). Total cumulative cost for all CVD-related admissions over 5 years was roughly \$670 million. **CONCLUSIONS:** A substantial proportion of hospitalized patients with diabetes can be expected to require additional hospital-level care for CVD within a 5-year period. Although the total hospital cost for CVD-related events reported here is impressive, it is conservative, as it captures only one aspect of care for CVD in these patients. These results emphasize the profound economic consequences of cardiovascular complications in patients with diabetes.